

I. THE CLAIMED INVENTION

An exemplary embodiment of the claimed invention, as defined by, for example, independent claim 1, is directed to an opening/closing type portable information terminal equipped with a display portion housing having a display portion and an operating portion housing having an operating portion. An end portion of the display portion housing is linked to an end portion of the operating portion housing by a rotating mechanism under a state that a face of the display portion of the display portion housing is maintained to orient in a same side as a face of the operating portion of the operating portion housing so that the display portion housing is rotatable relative to the operating portion housing around the rotational axis of the rotating mechanism and so that the display portion housing swings through an arc that is substantially parallel to the face of the operating portion at a closed position. The rotational axis forms an acute angle with at least one of the face of the operating portion and the face of the display portion. Further, the display portion housing includes operating keys which are operable under a state that the display portion housing and the operating portion housing are closed.

Conventional portable terminal devices (like the terminal disclosed by the Kfoury reference) include a display portion that is rotatable with respect to the operating portion such that the two portion fold together and/or apart in a clam-shell like motion (col. 4, lines 53-57).

However, when these conventional terminal devices have been folded, the display portion cannot be seen and it is inconvenient for the user to repeatedly open and close the terminal to determine whether messages have been received and to review new messages.

Additionally, the operating keys for these conventional devices are not accessible when in a closed configuration, and therefore, these devices are not operable according to

user interaction when in the closed configuration.

In stark contrast, the present invention provides a very simple structure that allows the display portion to rotate through an arc about a rotational axis that maintains an acute angle with at least one of the face of the operating portion and the face of the display portion where the display portion housing includes operating keys which are operable under a state that the display portion housing and the operating portion housing are closed.

In this manner, the present invention maintains the display portion in a visible and useable position regardless of whether the terminal is closed or open and further, enables the device to be used though the use of the operating keys on the display portion even while the terminal is closed.

II. THE PRIOR ART REJECTIONS

A. The Gray reference in view of the Narayanaswamy et al. reference

Regarding the rejection of claims 1, 4, 6, 8-9, and 13, the Examiner alleges that the Narayanaswamy et al. reference would have been combined with the Gray reference to form the claimed invention. Applicant submits, however, that these references would not have been combined as alleged by the Examiner.

The Examiner admits that the Gray reference does not disclose the features of the claimed invention including a display portion housing including operating keys which are operable under a state that the display portion housing and the operating portion housing are closed.

The Examiner then alleges that it would have been obvious to one having ordinary skill in the art to modify the telephone that is disclosed by the Gray reference to include

operating keys which are operable when the telephone is closed based upon the disclosure of the Narayanaswamy et al. reference.

Contrary to the Examiner's allegation, one of ordinary skill in the art would not have been motivated to modify the telephone that is disclosed by the Gray reference to include operating keys which are operable when the telephone is closed because the Gray reference teaches away from making such a modification and such a modification of the telephone would destroy the intended purpose of the telephone configuration that is disclosed by the Gray reference.

These references would not have been combined as alleged by the Examiner because the Gray reference teaches away from making the modification which the Examiner proposes.

**“References Cannot Be Combined Where Reference Teaches
Away from Their Combination”**

“It is improper to combine references where the references teach away from their combination.” (Emphasis original, M.P.E.P. § 2146.X.D.2).

The Gray reference discloses a portable wireless telephone having a swivel chassis. In particular, the Gray reference is concerned about “protecting the keypad and/or controls from inadvertent contact and impact with objects in its vicinity, and also protecting the controls of the telephone from contamination by dust and other debris that might be present in its immediate environment.” (Col. 2, lines 25 - 30).

In order to protect the keypad and/or controls from inadvertent contact and contamination by dust and other debris, the Gray reference discloses an “assembly that provides suitable protection for the operational components thereof while the telephone is being carried about by the person of the user” (col. 3, lines 6-11) and explains that this object

is accomplished by providing a “surface 22 will be the mating surface in closure and act as a perimeter barrier for a telephone keypad 24 or other control panel components which will preferably be sealed with respect to the second chassis section 14 to prevent entry of dust and other debris therein. The first chassis section 12 defines a rear surface 15 which corresponds with the configuration of the chassis surface 22 and, in the closed positions of the chassis sections, is disposed in close fitting, covering relation with the surface of panel 22 of the second chassis section to minimize contamination of the key pad 24 by dust and other debris.” (Col. 6, lines 5-15).

In summary, the Gray reference teaches that it is important to cover the keypad and/or controls when in the closed position in order to protect the keypad and/or controls.

In other words, the Gray reference teaches away from making the modification which the Examiner proposes to make to the device disclosed by the Gray reference.

Since the Gray reference teaches away from exposing the controls so that the controls are protected, the Examiner is not permitted to allege that one of ordinary skill in the art would have been motivated to expose the controls.

Secondly, contrary to the Examiner’s allegation, one of ordinary skill in the art would not have been motivated to modify the telephone that is disclosed by the Gray reference to include operating keys which are operable when the telephone is closed based upon the disclosure of the Narayanaswamy et al. reference because such a modification would render the telephone configuration that is disclosed by the Gray reference useless for its intended purpose.

M.P.E.P. § 2143.01 states:

“If proposed modification would render the prior art invention being

modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” (Emphasis added).

As explained above, the intended purpose of the configuration that is disclosed by the Gray reference is “for protecting the keypad and/or controls from inadvertent contact and impact with objects in its vicinity, and also protecting the controls of the telephone from contamination by dust and other debris that might be present in its immediate environment.” (Col. 1, lines 13 - 16, and col. 2, lines 25 - 31).

If one were to modify the telephone configuration that is disclosed by the Gray reference to include operating keys which are operable when the telephone is closed based upon the disclosure of the Narayanaswamy et al. reference, then the controls would no longer be protected from inadvertent contact and impact with objects in the vicinity and would also no longer be protected from contamination by dust and other debris, thereby rendering the telephone useless for its intended purpose.

Further, Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

Specifically, as explained above, the Gray reference is concerned with protecting operating keys from inadvertent contact and exposure to contaminants and the Kfoury reference is concerned with the completely different and unrelated problem of improving the adaptability of user interfaces in portable electronic devices allowing multi-mode operation and disability access while reducing manufacturing time and cost.

In stark contrast, the Narayanaswamy et al. reference is concerned with the completely different and unrelated problem of a limited display size (col. 1, lines 11-22).

One of ordinary skill in the art who was concerned with protecting operating keys from inadvertent contact and exposure to contaminants as the Gray reference is concerned, would not have referred to the Narayanaswamy et al. reference, and vice-versa, because the Narayanaswamy et al. reference is concerned with the completely different and unrelated problem of a limited display size. Thus, these references would not have been combined.

Therefore, the Examiner is respectfully requested to withdraw the rejection of claims 1, 4, 6, 8-9, and 13.

B. The Gray reference in view of the Narayanaswamy et al. reference and further in view of the Kfoury reference

Regarding the rejection of claims 2-3, 5, 10-12, 14-16, 18, and 20-22, the Examiner alleges that the Narayanaswamy et al. reference would have been combined with the Gray reference and further alleges that the Kfoury reference would have been combined with the Narayanaswamy et al. reference and the Gray reference to form the claimed invention. Applicant submits, however, that these references would not have been combined.

As explained above, one having ordinary skill in the art would not have combined the Narayanaswamy et al. reference with the Gray reference as alleged by the Examiner because the Gray reference specifically teaches away from making such a modification and because such a modification would destroy the intended purpose of the Gray reference.

Further, Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

In stark contrast to the Narayanaswamy et al. reference and the Gray reference, the

Kfoury reference is concerned with the completely different and unrelated problem of improving the adaptability of user interfaces in portable electronic devices allowing multi-mode operation and disability access while reducing manufacturing time and cost.

One of ordinary skill in the art who was concerned with protecting operating keys from inadvertent contact and exposure to contaminants as the Gray reference is concerned or who was concerned with the problem of a limited display size, as the Narayanaswamy et al. reference is concerned, would not have referred to the Kfoury reference because the Kfoury reference is concerned with the completely different and unrelated problem of improving the adaptability of user interfaces in portable electronic devices allowing multi-mode operation and disability access while reducing manufacturing time and cost. Thus, these references would not have been combined.

Therefore, the Examiner is respectfully requested to withdraw the rejection of claim 2-3, 5, 10-12, 14-16, 18, and 20-22.

C. The Gray reference in view of the Narayanaswamy et al. reference and further in view of the Kfoury reference and yet in further view of the Lim reference

Regarding the rejection of claim 17, the Examiner alleges that the Narayanaswamy et al. reference would have been combined with the Gray reference and further alleges that the Kfoury reference would have been combined with the Gray reference and the Kfoury reference, and yet further alleges that the Lim reference would have been combined with the Kfoury reference, the Narayanaswamy et al. reference, and the Gray reference to form the claimed invention. Applicant submits, however, that these references would not have been

combined.

As explained above, one having ordinary skill in the art would not have combined the Narayanaswamy et al. reference with the Gray reference as alleged by the Examiner because the Gray reference specifically teaches away from making such a modification and because such a modification would destroy the intended purpose of the Gray reference.

Further, Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

In stark contrast to the Kfoury reference, the Narayanaswamy et al. reference, and the Gray reference, the Lim reference is concerned with the completely different and unrelated problem of providing a folder operating apparatus for a cellular phone which can achieve a stable opening and closing. (Col. 3, lines 34-41).

Indeed, none of the devices that are disclosed by the Kfoury reference, the Gray reference, or the Narayanaswamy et al. reference suffer from such a problem because none of these devices include a folder operating apparatus like that which is disclosed by the Lim reference.

Moreover, the folder operating apparatus that is disclosed by the Lim reference operates based upon a principal of operation which is completely different from the devices that are disclosed by the Kfoury reference, the Narayanaswamy et al. reference, and the Gray reference.

Thus, one of ordinary skill in the art would not have been motivated to modify the portable electronic device that is disclosed by the Kfoury reference, the device that is disclosed by the Gray reference, or the device that is disclosed by the Narayanaswamy et al.

reference with the folding operating apparatus that is disclosed by the Lim reference because such a modification would change the principle of operation of the portable electronic devices that are disclosed by the Kfoury reference, Gray reference, and the Narayanaswamy et al. reference.

Therefore, the Examiner is respectfully requested to withdraw the rejection of claim 17.

III. FORMAL MATTERS AND CONCLUSION

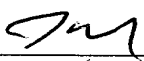
In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-6, 8-18, and 20-22, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 5/12/94


James E. Howard
Registration No. 39,715

McGinn Intellectual Property Law Group, PLLC
8321 Old Courthouse Rd., Suite 200
Vienna, Virginia 22182
(703) 761-4100
Customer No. 21254